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EXAMINER	
ARCOS, CAROLINE H	

ART UNIT	PAPER NUMBER
2195	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/783,448	CZAJKOWSKI ET AL.	
	Examiner	Art Unit	
	CAROLINE ARCOS	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02/20/2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-45 are pending for examination.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887,225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

3. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

4. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1- 5, 18-19, 24-27, 29-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 15-17, 22-26, 38-40, 44-49, 53-55, 59- 62, 68-69, 73-75 and 79-81 of U.S. Application No. 10783738. Although the conflicting claims are not identical, they are not patentably distinct from each other. Claims 1-3 of the instant application have similar limitation as claims 1-3 and 15 of the copending application since both inventions are monitoring and controlling resource requests for a resource separately from resource implementation based on common sets of attributes of the resource. Both invention determine if there is one or more trigger corresponding to any one of the requests and resolves the determined triggers.

6. The difference between both inventions is that the instant application teaches that the trigger determine if the threshold rate would be exceeded and delay servicing of the request, whereas the copending application teaches resolving the trigger by executing one or more of the corresponding policy decision to the determined triggers. It would have been obvious to one of ordinary skill in the art at the time the invention was made that the trigger can be any condition including a threshold rate and delaying service of the request is the corresponding policy decision of the determined trigger which would improve system performance and throughput by regulating resource requests by delaying the request so it can be proceeded without denial of

service in a later time.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-17, and 29-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The claim language in the following claims is not clearly understood:

i. As per claim 1, it is not clearly understood whether" an isolate" is a consuming isolate or how does it relate. It is not clearly understood what is meant by "does not share state", is it execution state? What is meant by state?

ii. As per claim 29, it has the same deficiency as claim 1.

iii. As per claim 36, it has the same deficiency as claim 1

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-2, 4-5, 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000,

pages 1-12), in view of Bose et al. (US 7,366,134 B2) and further in view of Ramamurthy et al. (US 7,080,077 B2).

9. As per claim 1, Suri teaches the invention substantially as claimed including a method comprising:

if the threshold rate would be exceeded, then delaying servicing of the request for at least a period of time sufficient to avoid exceeding the threshold (page 7, lines 30-31; page 10, lines 10-11).

10. Suri doesn't explicitly teach that determining if servicing a consume request for a resource would cause a threshold rate that corresponds to the requested resource to be exceeded. wherein the consume request is from one of a plurality of resource consuming isolates bound to one of a plurality of resource domain in which one or more respective resource policies for the requested resource; wherein the threshold rate is specified in one of the one or more respective resource policies installed in the resource domain, wherein the resource domain associates the resource policy for the requested resource with the plurality of resource consuming isolates bound to one of the plurality of the resource domains.

11. However, Bose teaches determining if servicing a consume request for a resource would cause a threshold rate that corresponds to the requested resource to be exceeded (col. 8, lines 21-67).

12. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri and Bose because Bose teaching of determining if servicing a consume request for a resource would cause a threshold rate that corresponds to the requested resource to be exceeded would improve Suri system performance by detecting the issue before happening and one would be able to fine tune the system and tae the necessary action.

13. The combined teaching of Suri and Bose doesn't explicitly teach that wherein the consume request is from one of a plurality of resource consuming isolates bound to one of a plurality of resource domain in which one or more respective resource policies for the requested resource; wherein the threshold rate is specified in one of the one or more respective resource policies installed in the resource domain, wherein the resource domain associates the resource policy for the requested resource with the plurality of resource consuming isolates bound to one of the plurality of the resource domains.

14. However, Ramamurthy teaches that consume request is from one of a plurality of resource consuming isolates bound to one of a plurality of resource domain in which one or more respective resource policies for the requested resource; wherein the resource domain associates the resource policy for the requested resource with the plurality of resource consuming isolates bound to one of the plurality of the resource domains. (col. 3, lines 1-24; col. 3, lines 45- 62; col. 18, lines 26-38).

Wherein an isolate is a set of one or more computations that do not share state with other

computations (col. 3, lines 25-65; col. 9, lines 6-32).

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Bose and Ramamurthy because Ramamurthy teaching of source domain associates the resource policy for the requested resource with the plurality of resource consuming isolates bound to the resource domain would improve system performance and efficiency in resource usage based on set policy to protect the system from greedy resource consumers and bottlenecks.

16. The combined teaching of Suri, Bose and Ramamurthy doesn't explicitly teach that wherein the threshold rate is specified in one of the one or more respective resource policies installed in the one of the plurality of resource domain.

17. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to conclude from Suri, Bose and Ramamurthy teaching that policy rule can be any rule including Threshold rate as claimed.

18. As per claim 2, Suri teaches a first isolate resolves a trigger that determines if the threshold rate would be exceeded and delays servicing of the request, wherein the first isolate is an isolate that monitors and control resource requests for the resource separate from the implementation of the resource (page 8, lines 6-11).

19. As per claim 4, Suri teaches that the trigger is specified by a second isolate (pg. 9, lines 9-14).

20. As per claim 5, Suri teaches that the second isolate installs the trigger in one of the plurality of the resource domains and the first isolate determines the trigger from the one of the plurality of resource domains (pg. 7, lines 23-26; pg. 8, lines 6-11; pg. 9, lines 9-14).

21. As per claim 14, Suri teaches that said delaying servicing of the request comprises sleeping for the period of time resource (page 8, lines 10-11).

22. As per claim 17, Suri doesn't not explicitly teach a computer program product encoded in one or more machine-readable storage media.

23. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have some sort of storage device in the system in order to execute system.

24. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), in view of Bosc et al. (US 7,366,134 B2) and further in view of Ramamurthy et al. (US 7,080,077 B2), as applied to claims 1 and 41 above and further in view of Courtrai et al ("Resource management for parallel adaptive components", IEEE, 2003, pages 1-7).

25. As per claim 3, the combined teaching of Suri, Bose and Ramamurthy does not explicitly teach that the first isolate monitors and controls resource requests based at least in part on a set of common attributes used to characterize the resource, wherein the set of attributes comprises one or more attributes indicating whether the resource is one or more of disposable, revocable, reservable, and bounded.

26. However, Courtrai, teaches that the first isolate monitors and controls resource requests based at least in part on a set of common attributes characterizing the resource (pg. 5, left col., lines 19-23; pg. 5,right col., lines 28-33; pg. 6, left col., lines 1-8; Fig. 3).

27. The combined teaching of Suri, Bose, Ramamurthy and Courtrai doesn't explicitly teach that he set of attributes include disposable, revocable, reservable, and bounded. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to be motivated to use the combine teaching of Suri and Courtrai to include the well known attributes of disposable, revocable, reservable, and bounded because this is can apply to a broad range of attribute types that cover the well known range of types to facilitate the selection and monitoring of resources request.

28. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), in view of Bose et al. (US 7,366,134 B2) and further in view of Ramamurthy et al. (US 7,080,077 B2) as applied to claim 1 above, and further in view of Czajkowski et al. ("JRes: A reosurce

accounting interface for Java", ACM, 1998, pages 21-35) and further in view of Chambliss et al. (US 7,228,354 B2) and further in view of view of Belissent (WO 02/01834 12).

29. As per claim 13, the combined teaching of Suri, Bose, Ramamurthy, Czajkowski and Chambliss doesn't explicitly teach that the period of time is determined with the following: period of time = (amount overthreshold/threshold)*interval.

30. However, Belissent teaches that a period of time that the sleep computation is invoked is determined in accordance with the following: period of time= (amount overthreshold/threshold)*interval ((page 9, lines 7-11).

31. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Bose, Ramamurthy, Czajkowski, Chambliss and Belissent because Belissent teaching of calculating period of time that the sleep computation is invoked would improve system performance since calculating the waiting time function, would give the system a better accurate measurement as for how long the request has to be delayed to conform with the threshold by taking into consideration the amount of request that is over the threshold.

32. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1- 12), in view of Bose et al. (US 7,366,134 B2) and further in view of Ramamurthy et al. (US 7,080,077

B2) as applied to claims 1 and 28 above, in view o fBelissent (WO 02/01834 A2).

33. As per claim 15, Suri teaches that determining if the threshold rate is exceeded comprises:

determining a rate of requests from a particular resource consumer (pg. 7, lines 25-31); and

comparing the rate of requests against the threshold rate (pg. 7, lines 28-31).

34. The combined teaching of Suri, Bose and Ramamurthy doesn't teach explicitly that the threshold rate indicates a maximum number of allowable requests for a resource within a given interval. However, Blissent teaches that the threshold rate indicates a maximum number of allowable requests for a resource within a given interval (pg. 9, lines 1-5).

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Bose, Ramamurthy and Belissent because Belissent's teaching of the threshold rate indicated a maximum number of allowable requests for a resource within a given interval would improve system performance by adding the factor of the time interval into account, the system will not be overused by any resource consumer and it would be easy to identify whether the resource consumer is a potential attacker by measuring its consumption over a period of time.

36. As per claim 16, Belissent teach determining the rate of requests comprises: determining a number of requests received from the particular resource consumer over the given interval (pg. 9, lines 1-9).

37. Claims 18-20, 24-25, 27, 29, 30-31,33, 36, 38, 40-41, 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), and in view of Ramamurthy et al. (US 7,080,077 B2).

38. As per claim 18, Suri teach a method comprising:
throttling the consume requests to conform to a threshold (pg. 7, lines 26-31; pg. 8, lines 6-11).

39. Suri doesn't explicitly teach managing consume requests for a resource from a plurality of computations that consume the resource and that are bound to one of a plurality of resource domains in which one or more respective resource policies for the resource are installed; wherein the threshold is specified in one of the one or more respective resource policies installed in the one of the plurality of resource domains bound to the plurality of computations, wherein the one of the plurality of resource domains associates the one of the one or more respective resource policies for the resource with the plurality of computations bound to the one of the plurality of resource domains (pg. 7, lines 23- 24).

40. However, Ramamurthy teaches managing consume requests for a resource from a plurality of computations that consume the resource and that are bound to one of a plurality of resource domains in which one or more respective resource policies for the resource are installed; wherein one of the one or more respective resource policies installed in the one of the plurality of resource domains bound to the plurality of computations, wherein the one of the plurality of resource domains associates the one of the one or more respective resource policies for the resource with the plurality of computations bound to the one of the plurality of resource domains (col. 3, lines 1-24; col. 3, lines 45-62; col. 18, lines 26-38).

41. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri and Ramamurthy because Ramamurthy teaching o managing consume requests for a resource from a plurality of computations that consume the resource and that are bound to a resource domain for the resource; wherein the resource domain associates the resource policy for the resource with the plurality of computations bound to the resource domain would improve system performance and efficiency in resource usage based on set policy to protect the system from greedy resource consumers and bottlenecks.

42. The combined teaching of Suri and Ramamurthy doesn't explicitly teach that wherein the threshold is specified in one of the one or more respective resource policies installed in the one of the plurality of resource domains

43. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to conclude from Suri, and Ramamurthy teaching that policy rule can be any rules including Threshold as claimed.

44. As per claim 19, Suri teaches that said throttling the consume requests comprises delaying those consume requests that would cause the threshold to be exceeded (pg. 8, lines 6-11).

45. As per claim 20, Suri teaches that delaying comprises sleeping for a period of time (pg. 8, lines 6-11).

46. As per claim 24, Suri teaches that said managing consume request comprises a dispenser isolate managing resource requests, wherein isolates comprises a set of one or more encapsulated computations having a state that is independent of a state of other computations(page 8, lines 6-11).

47. As per claim 25, Suri teaches said throttling comprises the dispenser isolate resolving a trigger (pg. 7, lines 23-26; pg. 8, lines 6-11).

48. As per claim 26, Suri teaches that the trigger is specified by a second isolate (pg. 9, lines 9-14).

49. As per claim 27, Suri teaches that said throttling further comprises the second isolate installing the trigger in the resource domain (pg. 7, lines 23-26; pg. 8, lines 6-11; pg. 9, lines 9-14).

50. As per claim 29, Suri teaches a machine-readable storage medium storing program instructions executable to implement:
a rate control code that delays resource consumes requests that will cause a threshold to be exceeded (pg. 7, lines 22-31).

Suri teaching doesn't explicitly teach a posting facility code that posts consume requests for resources; a plurality of resource domains that each associate one or more respective resource policies for a requested resource with a plurality of resource consuming isolates bound to the resource domain;

wherein an isolate is a set of one or more computations that have a state that is independent of a state of other computations; wherein consume requests for the requested resource are received from one of the plurality of resource consuming isolates bound to one of the plurality of resource domains; and wherein the threshold is specified in the one or more respective resource policy installed in the one of the plurality of resource domain bound to the one of the plurality of resource consuming isolates. (pg. 8, lines 24-29; Fig. 1).

51. However, Ramamurthy teaches a plurality of resource domains that each associate one or more respective resource policies for a requested resource with a plurality of resource

consuming isolates bound to the resource domain(col. 3, lines 1-24; col. 3, lines 45-62); wherein an isolate is a set of one or more computations that have a state that is independent of a state of other computations(col. 3, lines 25-65); wherein consume requests for the requested resource are received from one of the plurality of resource consuming isolates bound to one of the plurality of resource domains; and wherein the threshold is specified in the one or more respective resource policy installed in the one of the plurality of resource domain bound to the one of the plurality of resource consuming isolates(col. 3, lines 1-24; col. 3, lines 45-62; col. 18, lines 26-38).

52. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri and Ramamurthy because Ramamurthy teaching of source domain associates the resource policy for the requested resource with the plurality of resource consuming isolates bound to the resource domain would improve system performance and efficiency in resource usage based on set policy to protect the system from greedy resource consumers and bottlenecks.

53. The combined teaching of Suri and Ramamurthy doesn't explicitly teach a posting facility code that posts consume requests for resources; wherein the threshold is specified in the resource policy installed in the resource domain.

54. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to conclude form Suri's teaching of program console that interacts with the

consumer within the execution system that this console is a posting facility that posts consume requests for resource which would improve system communication with the consumer by providing a front end interaction(API) that allow the consumer to interact with the execution system where servicing resource requests decision takes place. It is well known in the art that policy rule can be any rule including Threshold rate as claimed.

55. As per claim 30, Suri teaches that the program instructions executable to implement the posting facility are dependent at least in part on a dispenser class, wherein the dispenser class defines an intermediary set of one or more computations that monitor and control resource requests (pg. 8, lines 24-29; Fig. 1).

56. As per claim 31, Suri teaches that the program instructions executable to implement the rate control code are independent at least in part on a trigger class, wherein the trigger class defines one or more computations that query existence of at least one condition based at least in part on usage of a given resource (pg. 7, lines 23-31; pg. 8, lines 6-11; pg. 9, lines 9-14).

57. As per claim 33, Suri teaches the rate control code invokes a sleep computation to delay resource consume requests (page 8, lines 6-11).

58. As per claim 36, Suri teaches a computer program product encoded on one or more machine-readable storage medium storing program instructions executable to implement a first sequence of instructions determining if servicing a consume resource request from one of the

plurality of resource consuming isolates will cause a threshold to be exceeded (pg. 8, lines 9-10); and

a second sequence of instructions determining a period of time to delay the request to avoid exceeding the threshold (pg. 8, lines 9-11).

59. Suri doesn't explicitly teach that if servicing a consume resource request from one of the plurality of resource consuming isolates bound to one of the plurality of the resource domains for the requested resource will cause a threshold to be exceeded.
a plurality of resource domains each associating one or more respective a resource policies for a requested resource with a plurality of resource consuming isolates bound to one of the resource domains; wherein the threshold is specified in one of the one or more respective resource policies for the requested resource installed in one of the plurality of the resource domains.

60. Suri doesn't explicitly teach that a plurality of resource domains each associating one or more respective a resource policies for a requested resource with a plurality of resource consuming isolates bound to one of the resource domains; wherein the threshold is specified in one of the one or more respective resource policies for the requested resource installed in one of the plurality of the resource domains.

61. However, Ramamurthy teaches a plurality of resource domains each associating one or more respective a resource policies for a requested resource with a plurality of resource consuming isolates bound to one of the resource domains (col. 3, lines 1-24; col. 3, lines 45-62;

col. 18, lines 26-38).

62. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, and Ramamurthy because Ramamurthy teaching of s a resource domain associating a resource policy for a requested resource with a plurality of resource consuming isolates bound to the resource domain would improve system performance and efficiency in resource usage based on set policy to protect the system from greedy resource consumers and bottlenecks.

63. The combined teaching of Suri and Ramamurthy doesn't explicitly teach wherein the threshold is specified in one of the one or more respective resource policies for the requested resource installed in one of the plurality of the resource domains.

64. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to conclude form the combined teaching that policy rule can be any rule including Threshold as claimed.

65. As per claim 38, the combined teaching of Suri, and Ramamurthy doesn't explicitly teach the period of time to delay the request is based at least in part on a currently used amount of the resource, a potentially used amount of the resource based on the resource request, a previously consumed amount of the resource, a time interval, and the threshold, wherein the previously consumed amount of the resource indicate the amount of previously consumed resource within

the interval.

66. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate the period of time to delay the request based the amount of request that is over the threshold within a given time which would improve system performance and throughput by regulating the time to delay request, request can be proceeded without denial of service in a later time.

67. As per claim 40, Suri teaches that delaying the request comprises sleeping (pg. 8, lines 10-11).

68. As per claim 41, Suri teaches an apparatus comprising:

system memory (page 5, lines 38-39); and

means for throttling resource requests to comply with a threshold, which corresponds to a resource (page 8, lines 6-11).

69. Suri doesn't explicitly teach that a resource from a plurality of resource consuming isolates bound to one of a plurality of a resource domains in which one or more respective resource policies for the resource are installed;

wherein an isolate is a set of one or more computations that have a state that is independent of a state of other computations;

wherein the threshold is specified in one of the one or more respective resource policies

installed in the one of the plurality of resource domains bound to the plurality of resource consuming isolates, wherein the one or more respective resource domains associates the one of the one or more respective resource policies for the resource with the plurality of resource consuming isolates bound to the one of the plurality of resource domains.

70. However, Ramamurthy teaches a resource from a plurality of resource consuming isolates bound to one of a plurality of a resource domains in which one or more respective resource policies for the resource are installed(col. 3, lines 1-24; col. 3);

wherein an isolate is a set of one or more computations that have a state that is independent of a state of other computations(col. 3, lines 25-65);

wherein one of the one or more respective resource policies installed in the one of the plurality of resource domains bound to the plurality of resource consuming isolates, wherein the one or more respective resource domains associates the one of the one or more respective resource policies for the resource with the plurality of resource consuming isolates bound to the one of the plurality of resource domains(col. 3, lines 1-24; col. 3, lines 45-62; col. 18, lines 26-38).

71. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri and Ramamurthy because Ramamurthy teaching would improve system performance and efficiency in resource usage based on set policy to protect the system from greedy resource consumers and bottlenecks.

72. The combined teaching of Suri, and Ramamurthy doesn't explicitly teach wherein the threshold is specified in one of the one or more respective resource policies installed in the one of the plurality of resource domains.

73. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to conclude form the combined teaching that policy rule can be any rule including Threshold as claimed.

74. As per claim 43, Suri teaches means for determining if the threshold will be exceeded (page 8, lines 6-11).

75. As per claim 45, the combined teaching of Suri and Ramamurthy don't teach that the set of attributes comprises one or more attributed indicating whether the resource is one or more of disposable, revocable, reservable, and bounded.

76. However, It would have been obvious to one of ordinary skill in the art at the time the invention was made would be motivated to include the well known attributes of disposable, revocable, reservable, and bounded because this is can apply to a broad range of attribute types that cover the well known range of types to facilitate the selection and monitoring of resources request.

77. Claims 6- 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), in view of Bose et al. (US 7,366,134 B2) and further in view of Ramamurthy et al. (US 7,080,077 B2) as applied to claim 1 above, and further in view of Czajkowski et al. ("JRes: A reosurce accounting interface for Java", ACM, 1998, pages 21-35).

78. As per claim 6, the combined teaching of Suri, Bose and Ramamurthy doesn't teach explicitly that the threshold rate indicates a maximum allowable resource usage by a particular resource consumer within a given interval. However Czajkowski teaches the threshold rate indicates a maximum allowable resource usage by a particular resource consumer within a given interval (page 26, lines 38-42).

79. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Bose, Ramamurthy and Czajkowski teaching because Czajkowski's teaching of he threshold rate indicates a maximum allowable resource usage by a particular resource consumer within a given interval would improve system performance and allowing each consumer to have an equal sharing opportunity of a certain resource.

80. As per claim 7, Czajkowski teach that resource consumer comprises a client, an isolate, process, or an application (page 22, lines 31-35; page 26, right col., lines 9-18; page 31, right col., lines 12- 16).

81. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), in view of Bose et al. (US 7,366,134 B2) and further in view of Ramamurthy et al. (US 7,080,077 B2), in view of Czajkowski et al. ("JRes: A reosurce accounting interface for Java", ACM, 1998, pages 21-35) as applied to claim 6 above, and further in view of Chambliss et al. ((US 7,228,354 B2).

82. As per claim 8, the combined teaching of Suri, Bose, Ramamurthy and Czajkowski doesn't explicitly teach recording previous consume requests from the consumer. However, Chambliss teaches recording previous consume requests from the resource consumer (col. 12, lines 5-23; Fig. 8, element 806).

83. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Bose, Ramamurthy, Czajkowski and Chambliss because Chambliss teaching of recording previous consume request from the consumer would improve system monitoring and resource regulating and control by identifying consumer with high number of requests that exceed the threshold and be able to regulate resource consumption.

84. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), in view of Bose et al. (US 7,366,134 B2) and further in view of Ramamurthy et al. (US 7,080,077 B2) as applied to claim 1 above, and further in view of Czajkowski et al. ("JRes: A reosurce

accounting interface for Java", ACM, 1998, pages 21-35) and further in view of Chambliss et al. (US 7,228,354 B2).

85. As per claim 9, the combined teaching of Suri, Bose, Ramamurthy and Czajkowski doesn't explicitly teach recording previously consumed amounts of the resource. However, Chambliss teaches recording previously consumed amounts of the resource (col.4, lines 41-46; co 1.12, lines 11-17).

86. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Bose, Ramamurthy and Chambliss because Chambliss teaching of recording previous consume request from the consumer would improve system the system monitoring and resource regulating and control by identifying consumer with high number of requests that exceed the threshold and be able to regulate resource consumption.

87. As per claim 10, Suri, Bose, Ramamurthy, Czajkowski and Chambliss doesn't teach purging those recorded previously consumed amounts of the resource that fall beyond the given interval.

88. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to conclude form Chambliss teaching of updating the record with the new data finding is purging previously consumed amount of resource which would improve system performance by deleted unnecessary information and freeing up the space for more important

operations of the system.

89. As per claim 11, Chambliss teaches wherein determining comprises: determining a current usage of the requested resource (col. 12, lines 13-17); determining a potential usage of the resource based at least in part on the consume request (col. 10, lines 38-46); determining previously consumed amounts of the resource within a given interval from the recorded previous consumed amounts (col. 12, lines 26-48); and determining if the threshold rate will be exceeded based at least in part on the current usage, the potential usage, and the previously consumed amounts of the resource (Fig. 4; Fig. 1 0).

90. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Bose, Ramamurthy,Czajkowski and Chambliss because Chambliss teaching of recording a current usage, a potential usage, and a previously consumed resource amount within an interval would improve the system monitoring and resource regulating and control by identifying consumer with high number of requests that exceed the threshold and be able to regulate resource consumption.

91. As per claim 12, the combined teaching of Suri, Bose, Ramamurthy, Czajkowski and Chambliss doesn't explicitly teach that determining if the threshold rate will be exceeded is in accordance with the following, wherein previouslyconsumedamount indicates the amount of resource previously consumed within the given interval: amount overthreshold=potentialusage-

currentusage+previouslyconsumedamount-threshold.

92. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate amount over the threshold by taking into consideration previous usage, current usage, potential usage and how this comply with the threshold would improve resource monitoring and controlling by regulating the resource usage based on the amount over the threshold.

93. Claims 21, 23, 32, 34, 37 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), and in view of Ramamurthy et al. (US 7,080,077 B2) and further in view of Chambliss et al. (US 7,228,354 B2).

94. As per claim 21, the combined teaching of Suri and Ramamurthy doesn't explicitly teach determining a current usage, a potential usage, and a previously consumed resource amount within an interval.

95. However, Chambliss teaches determining a current usage, a potential usage, and a previously consumed resource amount within an interval (co 1.10, lines 38-46; co 1.12, lines 13-17; Fig. 4; Fig.10).

96. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Chambliss because Chambliss teaching of recording a current usage, a potential usage, and a previously consumed resource amount within an interval would improve system monitoring and resource regulating and control by identifying consumer with high number of requests that exceed the threshold and be able to regulate resource consumption.

97. As per claim 23, Suri teaches that threshold includes threshold comprises a threshold for a consumed resource amount, a threshold for a consume request rate (pg. 7, lines 26-31; Pg. 7, lines 32-35).

98. The combined teaching of Suri and Ramamurthy doesn't not explicitly teach that the threshold includes threshold resource consumption rate, and threshold number of resource consume requests.

99. However, Chambliss teaches that the threshold comprises a threshold for a resource consumption rate and a threshold for a number of resources consume requests (col.7, lines 25-36; col.7, lines 50-54).

100. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Chambliss because Chambliss teaching would improve the system efficiency in controlling resource requests by taking into consideration

critical thresholds that will help the system in taking more accurate decision of accepting the request or putting the request in a delay period.

101. As per claim 32, Suri teaches that threshold includes threshold consumed resource amount and threshold consume request rate (pg. 7, lines 26-31; Pg. 7, lines 32-35).

102. The combined teaching of Suri and Ramamurthy doesn't not explicitly teach that the threshold includes threshold resource consumption rate, threshold number of resource consume requests. However, Chambliss teaches that the threshold includes threshold resource consumption rate and threshold number of resource consume requests (col.7, lines 25-36; col.7, lines 50-54).

103. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Chambliss because Chambliss teaching would improve the system efficiency in controlling resource requests by taking into consideration critical thresholds that will help the system in taking more accurate decision of accepting the request or putting the request in a delay period.

104. As per claim 34, Suri and Ramamurthy don't explicitly teach the program instructions executable to implement the rate control is further executable to implement determining one or more of: a current resource usage, a potential resource usage, and a previously consumed

resource amount within an interval.

105. However, Chambliss teaches that the rate control code that further determines a current resource usage, a potential resource usage, and a previously consumed resource amount within an interval(col.10, lines 38-46; co1.12, lines 13-17; Fig. 4; Fig.10).

106. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Chambliss because Chambliss teaching of recording a current resource usage, a potential resource usage, and a previously consumed resource amount within an interval would improve system monitoring and resource regulating and control by identifying consumer with high number of requests that exceed the threshold and be able to regulate resource consumption.

107. As per claim 37, Suri teaches that threshold comprises a threshold for a consumed resource amount and a threshold for a consume request rate (pg. 7, lines 26-31; Pg. 7, lines 32-35).

108. The combined teaching of Suri and Ramamurthy doesn't not explicitly teach that the threshold includes a threshold for a resource consumption rate and a threshold for a number of resource consume requests. However, Chambliss teaches that the threshold includes threshold resource consumption rate and threshold number of resource consume requests (col.7, lines 25-

36; col.7, lines 50-54).

109. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Chambliss because Chambliss teaching would improve the system efficiency in controlling resource requests by taking into consideration critical thresholds that will help the system in taking more accurate decision of accepting the request or putting the request in a delay period.

110. As per claim 42, Suri teaches that threshold includes threshold consumed resource amount and threshold consume request rate (pg. 7, lines 26-31; Pg. 7, lines 32-35).

111. The combined teaching of Suri and Ramamurthy doesn't not explicitly teach that the threshold includes threshold resource consumption rate, threshold number of resource consume requests. However, Chambliss teaches that the threshold includes threshold resource consumption rate and threshold number of resource consume requests (col.7, lines 25-36; col.7, lines 50-54).

112. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Chambliss because Chambliss teaching would improve the system efficiency in controlling resource requests by taking into consideration critical thresholds that will help the system in taking more accurate decision of accepting the

request or putting the request in a delay period.

113. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), in view of Ramamurthy et al. (US 7,080,077 B2), as applied to claims 1 and 41 above and further in view of Courtrai et al ("Resource management for parallel adaptive components", IEEE, 2003, pages 1-7).

114. As per claim 44, Suri, and Ramamurthy doesn't teach that the resource is characterized by a set of attributes that are common across different resources. However, Courtrai teaches that the resource is characterized by a set of attributes that are common across different resources (pg. 5, left col., lines 19-23; pg. 5,right col., lines 28-33; pg. 6, left col., lines 1-8; Fig. 3)

115. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Courtrai teaching because Courtrai teaching of characterizing resources with a set of attributes that are common across a wide rage or resource would improve the system performance since controlling and searching for the resource will be much quicker and more efficient.

116. Claims 22 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1-12), in view of Ramamurthy et al. (US 7,080,077 B2), in view of Chambliss et al. (US 7,228,354 B2)

as applied to claim 21 above, and further in view of view of Belissent (WO 02/01834 12).

117. As per claim 22, the combined teaching of Suri, Ramamurthy and Chambliss doesn't explicitly teach that the period of time is determined in accordance with the following: amount overthreshold= potentialusage- currentusage + previouslyconsumedamount-threshold; and period of time=(amount over threshold/threshold)*interval.

118. However, Belissent teaches that the period of time is determined in accordance with the following: period of time= (amount overthreshold/threshold)*interval ((page 9, lines 7-11).

119. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy, Chambliss and Belissent because Belissent teaching of calculating period of time that the sleep computation is invoked would improve system performance and throughput by regulating the time to delay request, request can be proceeded without denial of service in a later time.

120. The combined teaching of Suri, Ramamurthy, Chambliss and Belissent doesn't explicitly teach that amount_overthreshold = potentialusage- currentusage + previouslyconsumedamount - threshold.

121. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate amount over the threshold by taking into consideration previous

usage, current usage, potential usage and how this comply with the threshold would improve resource monitoring and controlling by regulating the resource usage based on the amount over the threshold.

122. As per claim 35, the combined teaching of Suri, Ramamurthy and Chambliss doesn't explicitly teach that a period of time that the sleep computation is invoked is determined in accordance with the following: amount_overthreshold = potentialusage - currentusage + previouslyconsumedamount -threshold; and period of time= (amount_overthreshold/threshold) * interval.

123. However, Belissent teaches that a period of time that the sleep computation is invoked is determined in accordance with the following: period of time= (amount_overthreshold/threshold)*interval ((page 9, lines 7-11).

124. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy, Chambliss and Belissent because Belissent teaching of calculating period of time that the sleep computation is invoked would improve system performance and throughput by regulating the time to delay request, request can be proceeded without denial of service in a later time.

125. The combined teaching of Suri, Ramamurthy, Chambliss and Blissent doesn't explicitly teach that amount_overthreshold = potentialusage- currentusage + previouslyconsumedamount - threshold.

126. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate amount over the threshold by taking into consideration previous usage, current usage, potential usage and how this comply with the threshold would improve resource monitoring and controlling by regulating the resource usage based on the amount over the threshold.

127. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suri et al. ("Strong mobility and fine-grained resource control in NOMADS", ACM, 2000, pages 1- 12), in view of Ramamurthy et al. (US 7,080,077 B2) as applied to claims 1 and 28 above, in view o f Belissent (WO 02/01834 A2).

128. As per claim 39, the combined teaching of Suri, Ramamurthy doesn't explicitly teach that a period of time that the sleep computation is invoked is determined in accordance with the following: amount overthreshold=potentialusage- currentusage + previouslyconsumedamount - threshold; and period of time= (amount overthreshold/threshold)*interval.

129. However, Belissent teaches that a period of time that the sleep computation is invoked is determined in accordance with the following: period of time = (amount_overthreshold /

threshold) * interval ((page 9, lines 7-11).

130. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suri, Ramamurthy and Belissent because Belissent teaching of calculating period of time that the sleep computation is invoked would improve system performance performance and throughput by regulating the time to delay request, request can be proceeded without denial of service in a later time.

131. The combined teaching of Suri, Bose, Ramamurthy and Blissent doesn't explicitly teach that amount_overthreshold = potentialusage- currentusage + previouslyconsumedamount - threshold.

132. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to calculate amount over the threshold by taking into consideration previous usage, current usage, potential usage and how this comply with the threshold would improve resource monitoring and controlling by regulating the resource usage.

Response to Arguments

133. Applicant's arguments filed on 09/08/2009 have been fully considered but they are not persuasive.

134. In the remarks, Applicant argues the following:

a. Ramamurthy does not teach "resource consuming isolates bound to one of a plurality of resource domains in which one or more respective resource policies for the requested resource are installed".

b. Ramamurthy does not teach "isolate is a set of one or more computations that do not share state with other computations.

137. The examiner respectfully disagrees with the applicant in the following:

a. Ramamurthy teaches a user browser (application/isolate) submits requests for resources available on the web server or other web servers. The web servers grant the resource to the browser request by locating the matching resource to the request. This is done by checking whether the browser request match any entity profile (resource domain). When there is a match, the resource is then returned to the browser based on respective policy associated with the requested resource (col. 6, lines 28-35; col. 6, lines 55-67; col. 9, lines 5-30; col. 18, lines 17-39; fig. 22, 750) which is resource consuming isolates bound to one of a plurality of resource domains in which one or more respective resource policies for the requested resource are installed" as claimed.

b. Ramamurthy teaches a user browser (application/isolate) submits requests for resources which does not share state with other user browsers(col. 6, lines 28-35; col. 6, lines 55-67; col. 9, lines 5-30; col. 18, lines 17-39; fig. 22, 750).

Conclusion

138. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

139. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

140. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAROLINE ARCOS whose telephone number is (571)270-3151. The examiner can normally be reached on Monday-Thursday 7:00 AM to 5:30 PM.

141. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

142. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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